City of Salina Raw Water Supply Study

Citizen's Advisory Board Workshop

March 19, 2009
6:00 PM

Agenda for Tonight

- Municipal Water Conservation Plan
  - Long-Term Water Use Efficiency
    - Water Use Conservation Goals
    - Water Conservation Practices
  - Drought/Emergency Response
    - Stage 1: Water Watch
    - Stage 2: Water Warning
    - Stage 3: Water Emergency
  - Water Drought/Emergency Ordinance

- Future meeting
  - CAB Meetings
    - April 9, 2009 Tentative
  - City Commission
    - April 20, 2009 Tentative

Emergency Water Supply Plan

- Section 1 - Introduction
- Section 2 – Water System Description
- Section 3 – Disaster Organization/Responsibilities
- Section 4 –Cooperative Assistance Partners
- Section 5 – Inventory of Emergency Equipment
- Section 6 – System Vulnerabilities/Response Plans
- Section 7 – Emergency Water Conservation Procedures
- Section 8 – Communications Plan
- Section 9 – Key Personnel/Contact Information

Long-Term Water Use Efficiency

Water Use Conservation Goals

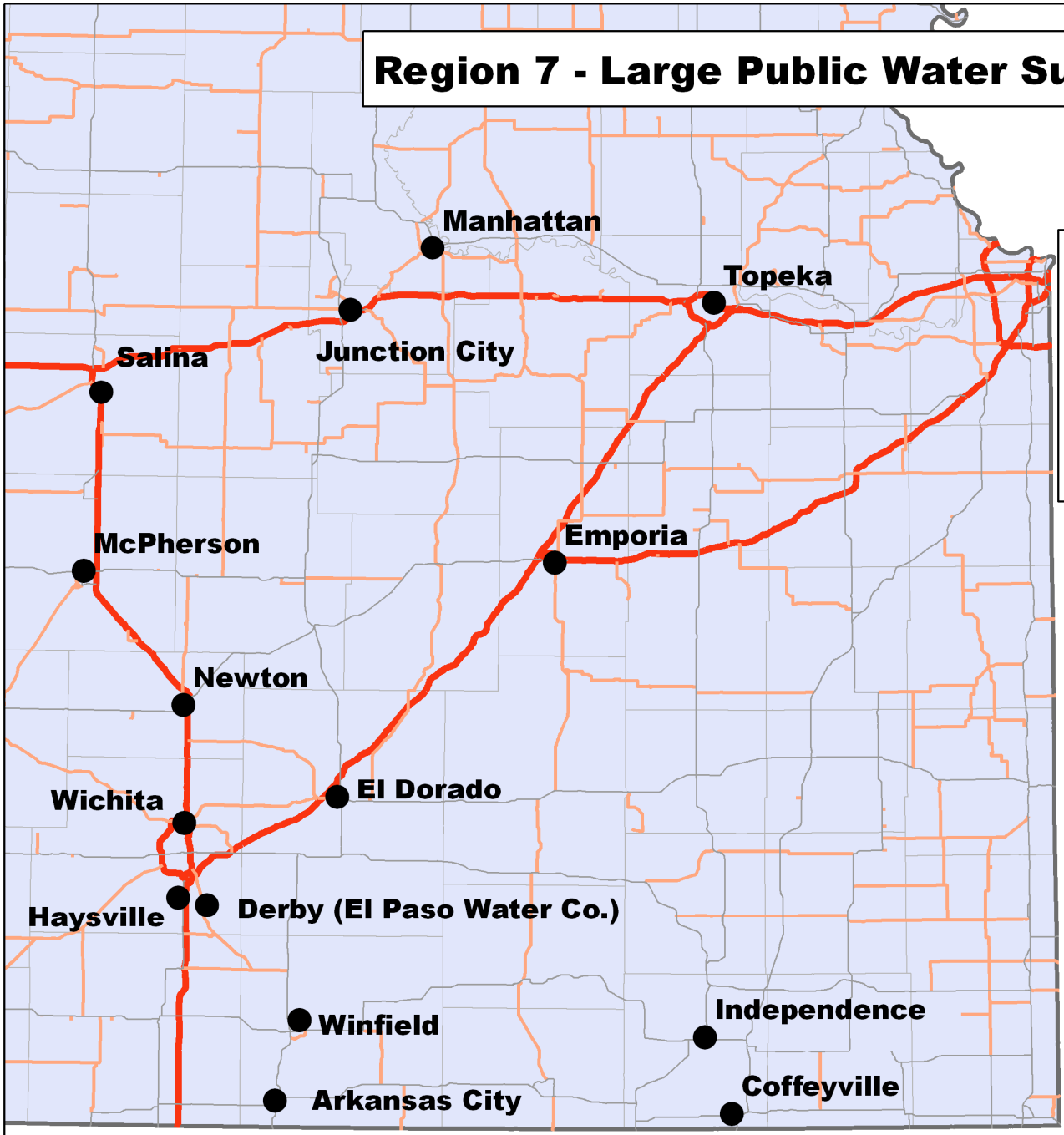
- Salina used 116 gallons per capita day (gpcd) in 2007
  - 126 gpcd over ten year period from 1998-2007
    - gpcd figure includes:
      - Water sold to residential and commercial customers;
      - Water distributed for free public services (fire protection, street cleaning, etc.); and
      - Water lost by leaks in the water distribution system
    - does not include:
      - Municipally supplied industrial water for industries that use over 200,000 gallons per year

TABLE 9
WATER USE STATISTICS FOR LARGE PUBLIC WATER SUPPLIERS
REGION 7, 2007

Public Water Supplier	GPCD	Regional Average GPCD	Percent Difference	Cost per 10,000 gal/month	Percent Metered Free	Percent Unacc. For
Coffeyville	232	135	+72	$44.88	21	23
Emporia	176	135	+31	$27.73	5	18
Junction City	150	135	+11	$25.18	4	21
McPherson	146	135	+8	$24.00	1	7
El Dorado	145	135	+7	$25.48	2	na
Wichita	141	135	+5	$19.49	1	4
Independence	141	135	+4	$27.87	1	22
Manhattan	141	135	+4	$26.34	6	9
Topeka	138	135	+2	$35.85	6	16
Winfield	129	135	-5	$32.55	0	14
Arkansas City	125	135	-8	$59.12	3	23
Salina	116	135	-14	$35.93	2	11
Newton	103	135	-24	$31.10	1	8
Haysville	94	135	-30	$19.38	4	11
Derby (El Paso Water Co.)	93	135	-31	$39.60	<1	na
Average	135	135	--	$32.01	4	14

Source: Kansas Municipal Water Use 2007 (KWO)

Region 7 - Large Public Water Suppliers



KWO Definition:

"Small public water suppliers serve fewer than 500 people, medium public water suppliers serve between 500 and 9,999 people, and large public water suppliers serve 10,000 people or more."

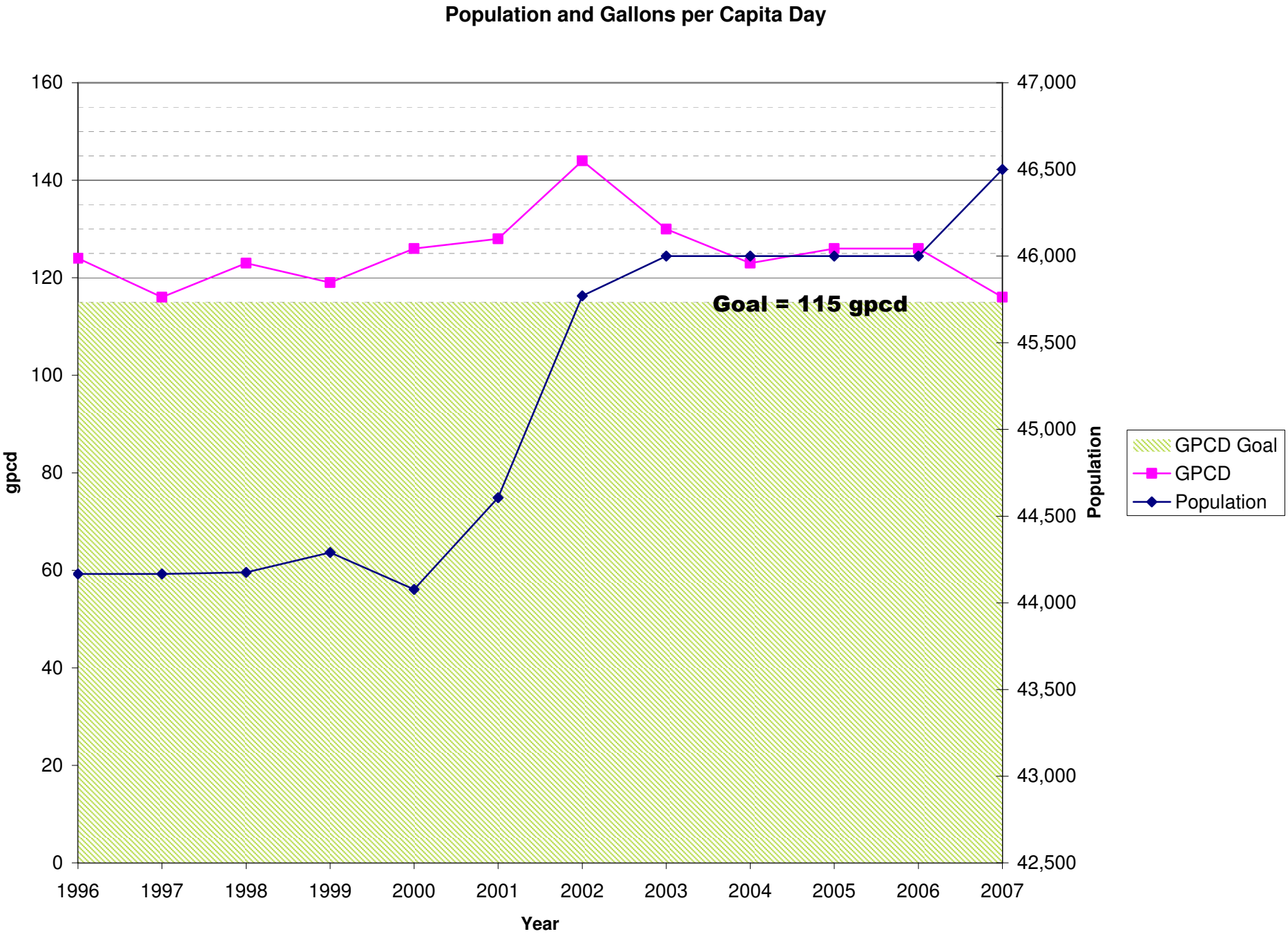
Source: Municipal Water Use 2007 (KWO)

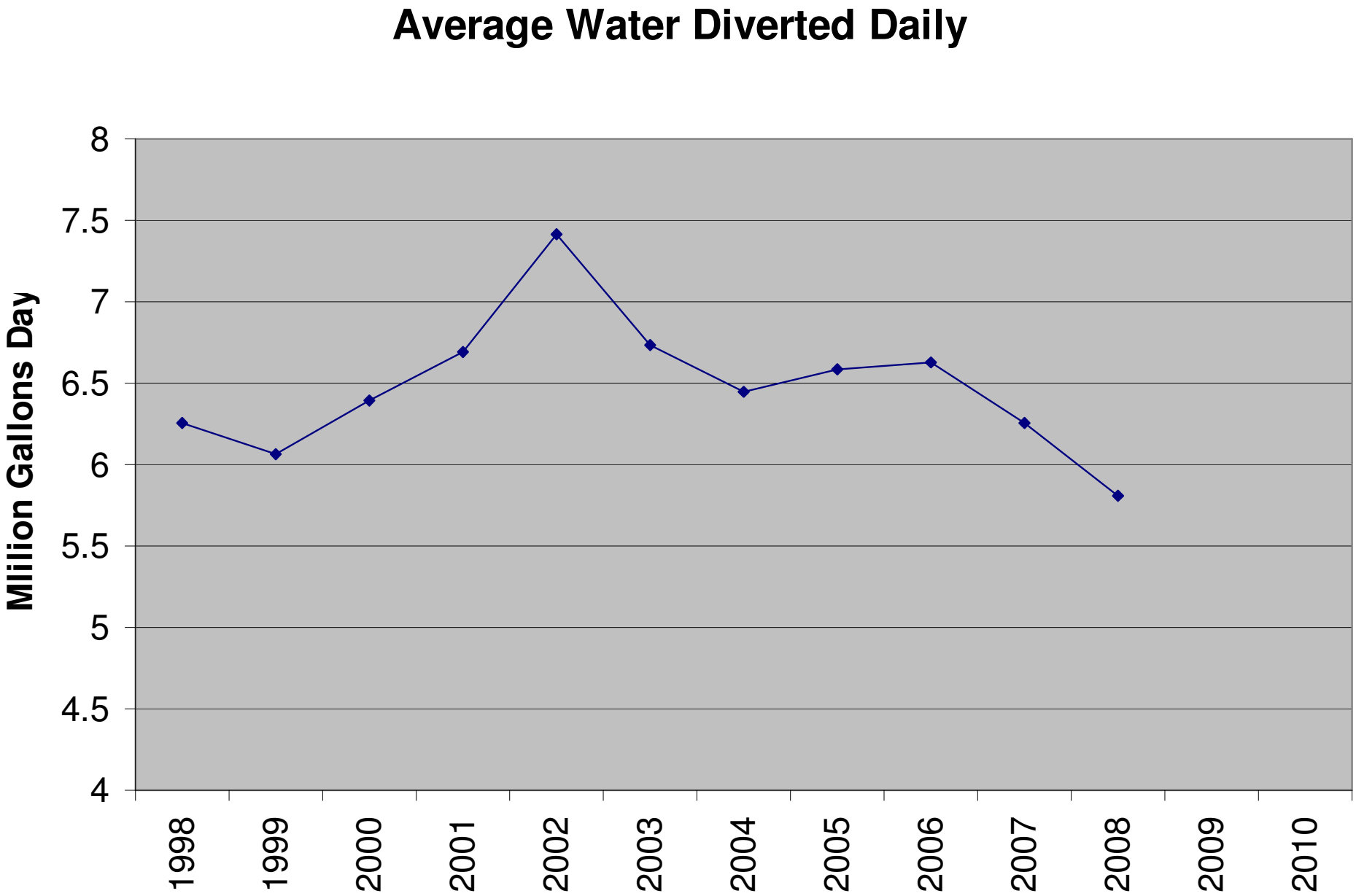
Salina and Region 7 GPCD

CITY OF SALINA

Region 7 - Population 46,500 (2007)
Water Use History

YEAR	GPCD	REGION AVG.	% DIFF.	% U.F.W.
1998	123	151	-18.5	5
1999	119	144	-17.4	7
2000	126	153	-17.6	4
2001	128	152	-15.8	10
2002	144	150	-4	12
2003	130	150	-13.3	13
2004	123	139	-11.5	11
2005	126	137	-8	14
2006	126	147	-14.9	11
2007	116	135	-14	12
AVG	126.1	145.8	-13.5	9.9


Population and Gallons per Capita Day
160
140
120
100
80
60
40
20
0
gpcd
47,000
46,500
46,000
45,500
45,000
44,500
44,000
43,500
43,000
42,500
Population
Goal = 115 gpcd
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
GPCD Goal
GPCD
Population


Average Water Diverted Daily
Million Gallons Day
8
7.5
7
6.5
6
5.5
5
4.5
4
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010

Education

The following is a list of current water use efficiency education practices:

1. The City makes available information on water conserving landscape practices through publications, local news media, seminars or other appropriate means
2. Water bills show the amount of water used in cubic feet during the billing period and the number of cubic feet used last year during the same billing period.
3. Water conservation tips are provided with the monthly water bills during the summer months.
4. Information is provided to the general public on lawn water requirements on a regular basis during the summer months.

The City plans to implement the following proposed water use efficiency education practices:

1. Water bills will show the amount of water used in gallons and the cost of water. Target Date: ~~1 July 1998~~ 1 July 2009
2. ~~Water conservation tips will be provided with the monthly water bills during the summer months. Target Date: 1 May 1998~~
3. ~~Provide information to the general public on lawn water requirement on a regular basis during the summer months. Target Date: 1 May 1998~~
2. Water bills will show the amount of water used in gallons during this billing period and the number of gallons used last year during the same billing period. Target Date: 1 November 2009
3. The Board of Education and teachers will be encouraged to become involved in water conservation through classroom lectures and incentives for children to conduct home checks. Target Date: 1 August 2010

Management

The following is a list of current water use efficiency management practices:

1. All raw water intakes have meters installed and the meters are repaired or replaced promptly. Raw water meters are tested for accuracy at least once every three years. Each meter is repaired or replaced if its test measurements are not within two percent of the actual volume of water passing through the meter.
2. All raw water meters and individual service connections are read at least on a monthly basis.
3. The City currently conducts a water management review, which results in a specified change in water management practices or implementation of a leak detection and repair program or plan, whenever the amount of unsold water exceeds 20 percent of the total raw water ~~intake~~ diverted for a four month time period.
4. Water sales are based on the amount of water used.
5. Meters are installed at all residential service connections and at all other service connections, including separate meters for municipally owned irrigation systems.
6. Meters at each individual service connection (one inch or less) are replaced on a regular basis, at least once every ~~10~~ 15 to 20 years.
7. The current water rate structure, adopted in June 2008, is an excess use rate where the unit price for water increases after a specified volume consumed is exceeded. The City's excess use rate structure is based around average winter consumption in order to promote water conservation.
8. The City's water distribution system is divided into five pressure zones. The pressure zones have been established to provide adequate water pressure to customers. Water pressure is monitored daily at each of the City's pumping facilities. Water pressure at the customers' premises is checked at the customer's request.
9. Implemented an irrigation management program for irrigated grounds.

Management (cont.)

The City plans to implement the following proposed water use efficiency management practices:

- ~~Meters at raw water intakes will be tested for accuracy at least once every three years. Each meter will be repaired or replaced if its test measurements are not within two percent of the actual volume of water passing through the meter. Target Date: 1 May 1998~~

1. Individual service connection meters between one inch and six inches will be tested for accuracy at least once every five years and meters six inches and above will be tested on at least an annual basis. Each meter will be repaired or replaced if its test measurements are not within two percent of the actual volume of water passing through the meter. Target Date: 1 July 2009
2. Develop and implement a program to incorporate water conserving landscape principles into future landscape development projects, including renovation of existing landscapes. Target Date: 1 July 2010
3. Develop and implement a water conservation rebate program. Target Date: 1 July 2011
4. Encourage the recycling of wastewater for selected industrial or irrigation purposes.

Regulation

The following ~~is a~~ are current water use efficiency regulation practices:

1. All new or renovated construction requires toilets that use ~~3.5~~ 1.6 gallons per flush or less and low flow shower heads that use 2.5 gallons per minute or less.
2. An ordinance was adopted in June 2008 which prohibits waste of water.
3. An ordinance was adopted in June 2008 which prohibits outdoor watering between the hours of 10:00am and 6:00pm effective between June 1 and September 30.
4. An ordinance was adopted in June 2008 which allows the governing body of the City to adopt or amend a water conservation rebate program.

The City plans to implement the following proposed water use efficiency regulation practice:

1. The ordinance for restricting outdoor watering between the hours of 10:00am and 6:00pm effective between June 1 and September 30 will be revised to include customers of the public water supply and all private domestic water well owners within the City limits.

   Target Date: 1 July 2009

Drought/Emergency Response

Drought Response

Drought Response

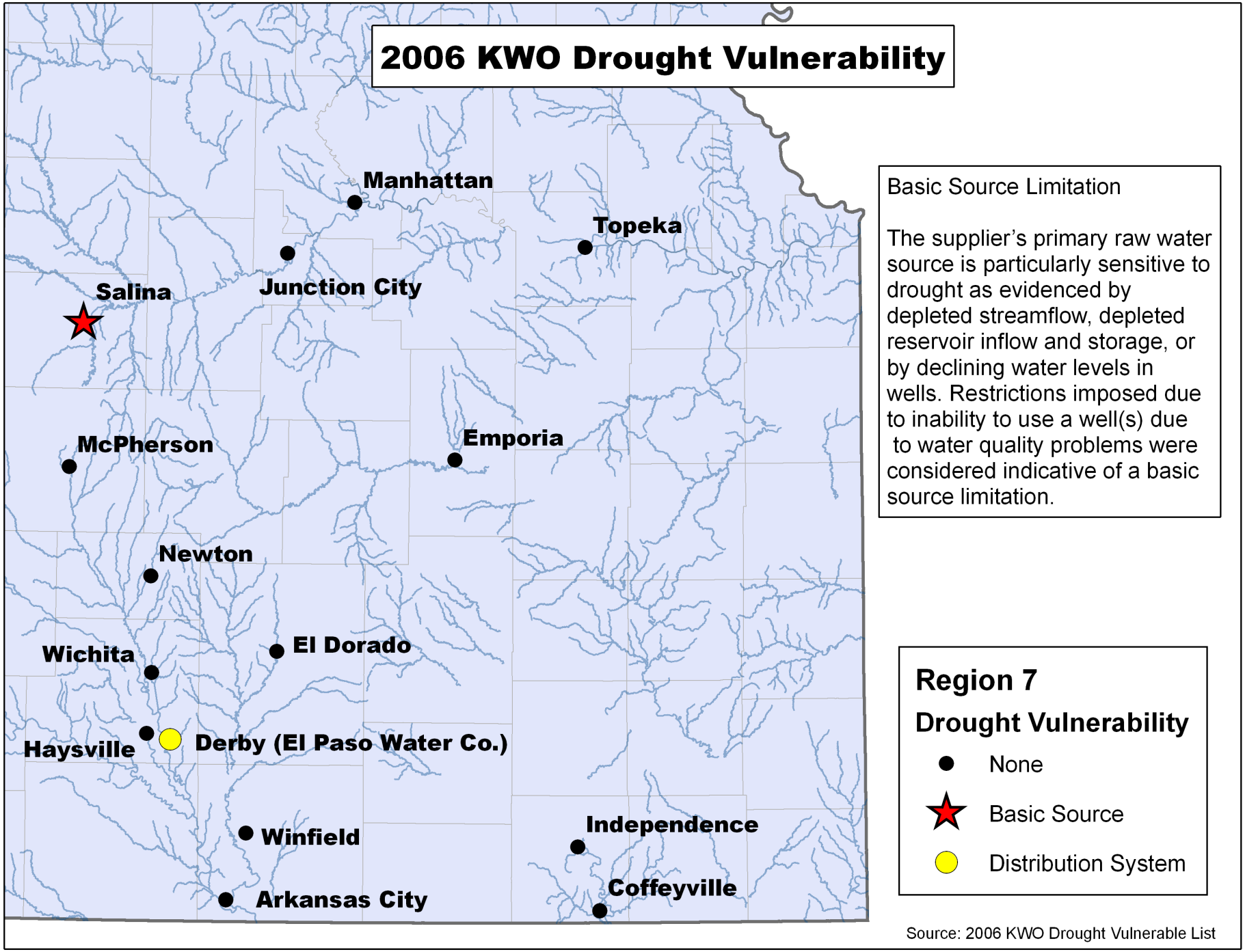
Coping with drought presents a challenge for public water suppliers. During drought periods the amount of water available typically is reduced at the same time customer demand for water increases. Also, mechanical breakdowns, line breaks and other problems may be more likely due to the stresses associated with drought. Drought response differs from long-term water use efficiency in the intensity and timing of the appropriate actions needed to manage and conserve water. The level of activity and the desired outcome during drought conditions are obviously more pronounced than under normal situations. Additionally, drought response efforts must occur immediately to enact short-term relief on the water supply system.

While all suppliers may be potentially impacted, some are particularly vulnerable. The Kansas Department of Health and Environment and the Kansas Water Office maintain a list of drought vulnerable Kansas public water suppliers. Those on the list are considered most likely to first experience drought-related problems. All suppliers on the drought vulnerable list are encouraged to develop and implement a municipal water conservation plan and to resolve the limitation(s) underlying their vulnerability.

As drought is but one of several emergency situations potentially facing a public water supplier, this section of the water conservation plan should be considered part of an overall emergency response plan. All public water suppliers must develop emergency response plans as required by K.A.R. 28-15-18 and authorized by K.S.A. 65-171m. Emergency plan guidance is available from the Kansas Department of Health and Environment, Bureau of Water.

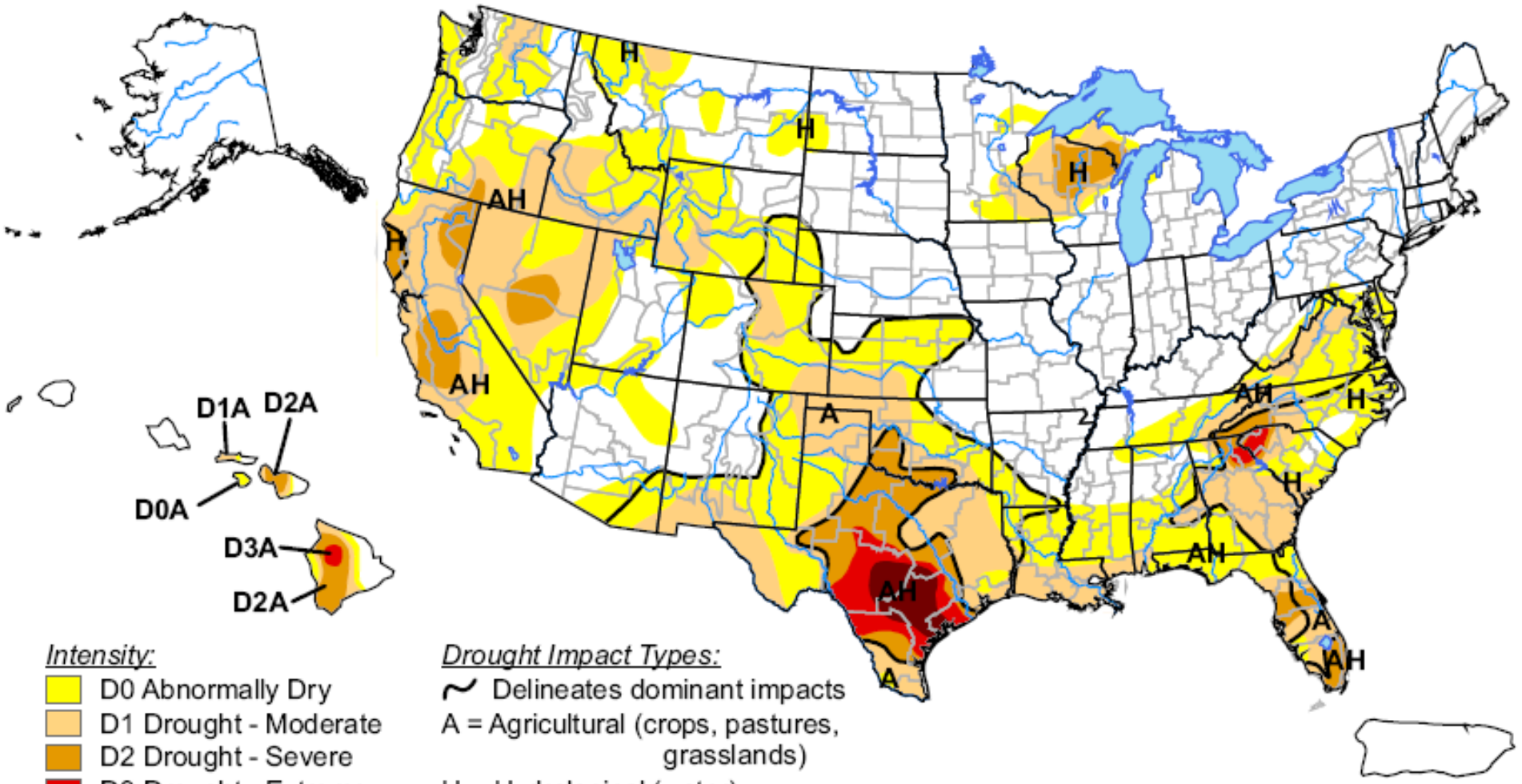
Water system officials should also coordinate with local emergency management officials regarding their community's overall strategy for emergency response.

Source: 2007 Kansas Municipal Water Conservation Plan Guidelines (KWO)


2006 KWO Drought Vulnerability
Manhattan
Topeka
Junction City
Salina
McPherson
Emporia
Newton
Wichita
El Dorado
Haysville
Derby (El Paso Water Co.)
Winfield
Independence
Arkansas City
Coffeyville
Basic Source Limitation
The supplier's primary raw water source is particularly sensitive to drought as evidenced by depleted streamflow, depleted reservoir inflow and storage, or by declining water levels in wells. Restrictions imposed due to inability to use a well(s) due to water quality problems were considered indicative of a basic source limitation.
Region 7
Drought Vulnerability
None
Basic Source
Distribution System
Source: 2006 KWO Drought Vulnerable List

U.S. Drought Monitor

March 10, 2009
Valid 8 a.m. EDT



Intensity:
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:
- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

Released Thursday, March 12, 2009

Authors: Michael Brewer/Liz Love-Brotak, NOAA/NESDIS/NCDC

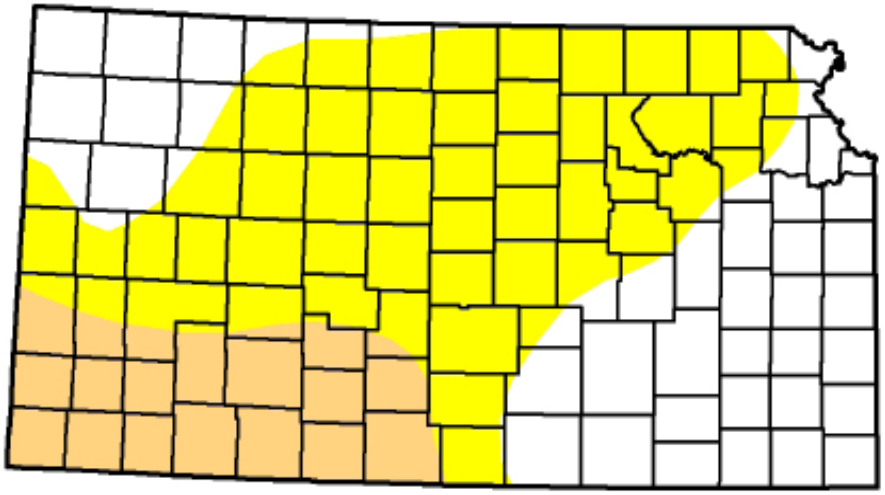
U.S. Drought Monitor

Kansas

March 10, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	36.1	63.9	16.5	0.0	0.0	0.0
Last Week (03/03/2009 map)	36.3	63.7	16.5	0.0	0.0	0.0
3 Months Ago (12/16/2008 map)	92.7	7.3	0.7	0.0	0.0	0.0
Start of Calendar Year (01/06/2009 map)	94.4	5.6	0.7	0.0	0.0	0.0
Start of Water Year (10/07/2008 map)	84.6	15.4	7.7	1.1	0.0	0.0
One Year Ago (03/11/2008 map)	64.7	35.3	6.1	0.0	0.0	0.0



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USDA National Drought Mitigation Center

Released Thursday, March 12, 2009

http://drought.unl.edu/dm

Author: M. Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

Stage 1: Water Watch

Triggers

This stage is triggered by any one of the following conditions:

1. Treatment plant operations are at 75 percent capacity or more for three consecutive days, or
2. ~~Groundwater levels have fallen 5 feet below the normal seasonal level, or~~
2. When groundwater is the only source and groundwater levels at Oakdale Monitoring Well have fallen below a static depth of 29 feet, or
3. ~~Smoky Hill River levels are below 45 cfs at the Mentor Gage, or~~
3. Smoky Hill River levels are below 40 cfs at the Mentor Gage during the months of June through September and the river flow has been in a declining trend for at least 7 consecutive days, or
4. Smoky Hill River levels are below 30 cfs at the Mentor Gage during the months of October through May and the river flow has been in a declining trend for at least 7 consecutive days, or
5. Emergency conditions related to repairs or water quality.

Goals

The goals of this stage are to heighten awareness of the public on water conditions and to maintain the integrity of the water supply system.

Stage 1: Water Watch

Education Actions

1. The City will make occasional news releases to the local media describing present conditions and indicating the water supply outlook for the upcoming season.
2. Previous months summaries of precipitation, temperature, and water levels will be made public at the beginning of each month.

Management Actions

1. Leaks will be repaired within 8 hours of detection.
2. The City will monitor its use of water and will curtail routine activities such as hydrant flushing and street cleaning.

Regulation Actions

1. The public will be asked to curtail some outdoor water use and to make efficient use of indoor water, i.e. wash full loads, take short showers, don't let faucets run, etc.
2. Any other action deemed appropriate by the City Manager.

Stage 2: Water Warning

Triggers

This stage is triggered by any one of the following conditions:

1. Treatment plant operations are at 90 percent capacity or more for three consecutive days, or
2. ~~Groundwater levels have fallen 10 feet below the normal seasonal level, or~~
2. When groundwater is the only source and groundwater levels at Oakdale Monitoring Well have fallen below a static depth of 27 feet, or
3. ~~Smoky Hill River levels are below 30 cfs at the Mentor Gage, or~~
3. Smoky Hill River levels are below 30 cfs at the Mentor Gage during the months of June through September and the river flow has been in a declining trend for at least 5 consecutive days, or
4. Smoky Hill River levels are below 20 cfs at the Mentor Gage during the months of October through May and the river flow has been in a declining trend for at least 5 consecutive days, or
5. Emergency conditions related to repairs or water quality.

Goals

The goals of this stage are to reduce peak demands by 20% and to reduce overall weekly consumption by 10%.

Stage 2: Water Warning

Education Actions

1. The City will make weekly news releases to the local media describing present conditions and indicating the water supply outlook for the upcoming week.
2. Previous week summaries of precipitation, temperature, and water levels will be made public each Thursday.

Management Actions

1. The City's water supplies will be monitored daily.
2. Leaks will be repaired within 8 hours of detection.
3. ~~Standby (Schilling) wells~~ Emergency water supplies will be prepared for contingency operation.
4. The City will ~~curtail~~ cease routine ~~its~~ water usage, including watering of City grounds and washing of vehicles.
5. The City will contact the Chief Engineer for authorization to require private domestic water well owners to comply with the City's Drought Response Plan per K.S.A. 82a-733(i).

Stage 2: Water Warning

Regulation Actions

1. An odd/even or zoned lawn water system will be imposed on City residents. Residents with odd-numbered addresses will water on odd days, even addresses will water on even days.
2. Commercial/Industrial owners will be allowed to preserve vegetation required by the City's landscaping ordinance.
3. Outdoor water use including lawn watering and car washing will be restricted to before 10:00am and after ~~9:00pm~~ 6:00pm.
4. Refilling of swimming pools will be allowed one day a week after sunset.
5. Waste of water will be prohibited.
6. Home outdoor washing of vehicles will be restricted to one day a week only.
7. Restrictions will be imposed on all City residents (public water supply customers and private domestic water well owners) with authorization by the Chief Engineer as provided by K.S.A. 82a-733(i).
8. Any other action deemed appropriate by the City Manager.

Stage 3: Water Emergency

Triggers

This stage is triggered by any one of the following conditions:

1. Treatment plant operations are at 100 percent capacity or more for three consecutive days, or
2. ~~Groundwater levels have fallen 15 feet below the normal seasonal level, or~~
2. When groundwater is the only source and groundwater levels at Oakdale Monitoring Well have fallen below a static depth of 25 feet, or
3. ~~Smoky Hill River levels are below 15 cfs at the Mentor Gage, or~~
3. Smoky Hill River levels are below 20 cfs at the Mentor Gage during the months of June through September and the river flow has been in a declining trend for at least 3 consecutive days, or
4. Smoky Hill River levels are below 15 cfs at the Mentor Gage during the months of October through May and the river flow has been in a declining trend for at least 3 consecutive days, or
5. Emergency conditions related to repairs or water quality.

Goals

The goals of this stage are to reduce peak demands by 50% and to reduce overall weekly consumption by 25%.

Stage 3: Water Emergency

Education Actions

1. The City will make daily news releases to the local media describing present conditions and indicating the water supply outlook for the next day.
2. Previous days summaries of precipitation, temperature, and water levels will be made public each day.
3. The City will hold public meetings to discuss the emergency, the status of the City's water supply and further actions which need to be taken.

Management Actions

1. The City's water supplies will be monitored daily.
2. Leaks will be repaired within 8 hours of detection.
3. ~~Standby (Schilling) wells~~ Emergency water supplies will be prepared for contingency operation.
4. The City will seek additional emergency water supplies from state or federal agencies.

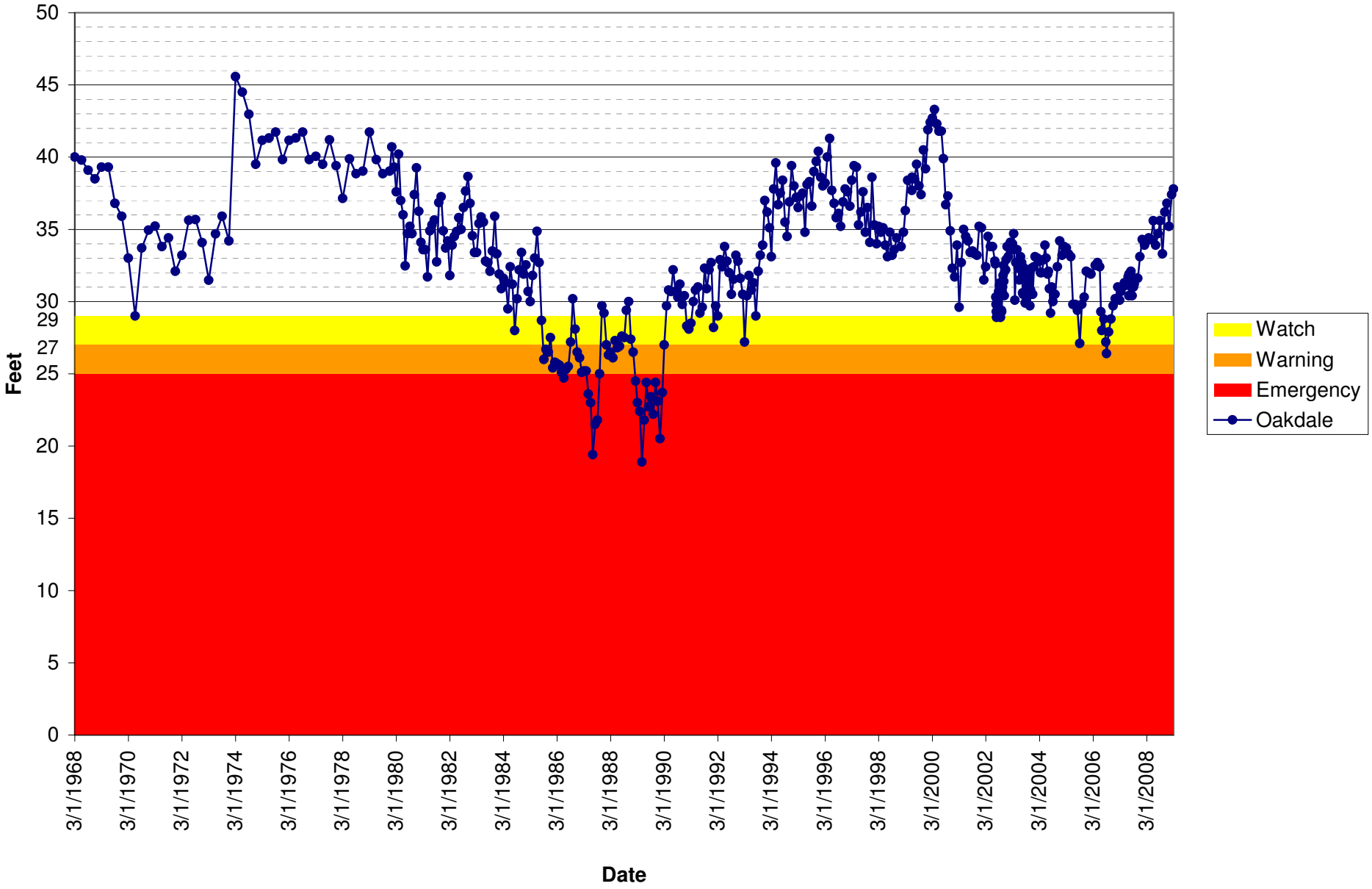
Stage 3: Water Emergency

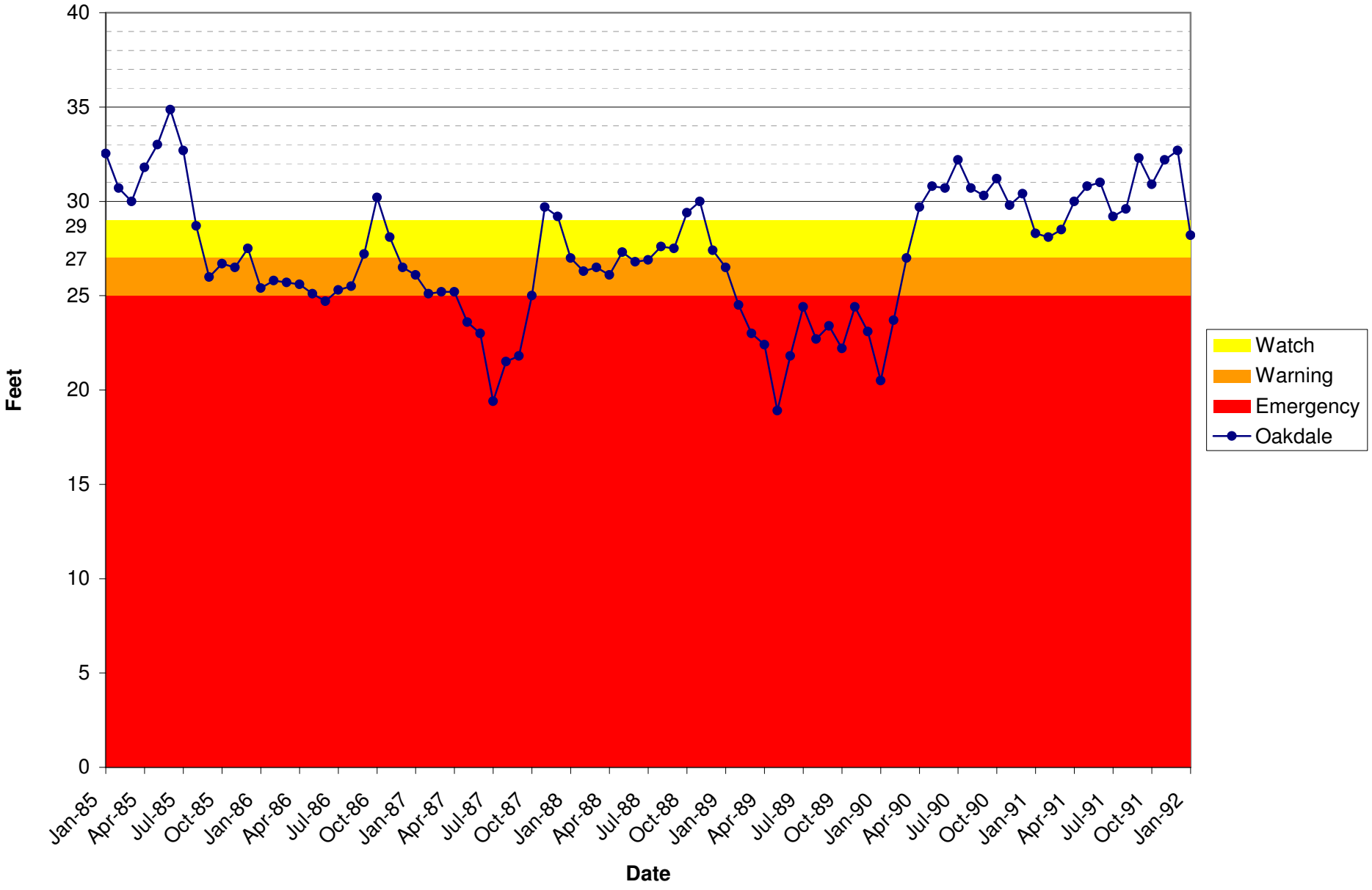
Regulation Actions

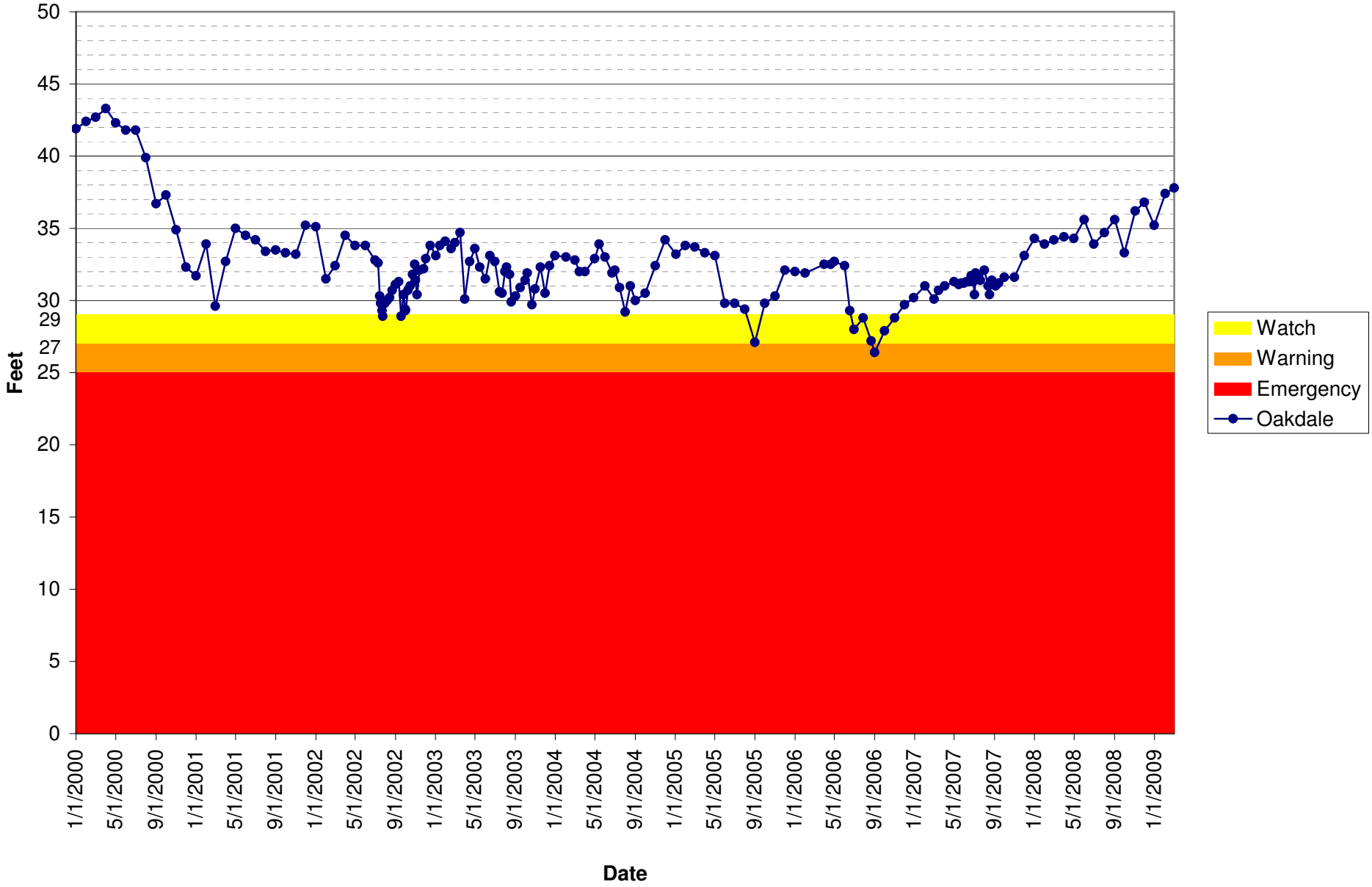
1. Outdoor water use will be banned.
2. Waste of water will be prohibited.
3. Emergency water rates may be imposed.
4. Restrictions will be imposed on all City residents (public water supply customers and private domestic water well owners) with authorization by the Chief Engineer as provided by K.S.A. 82a-733(i).
5. Any other action deemed appropriate by the City Manager.

Trigger Point Comparison

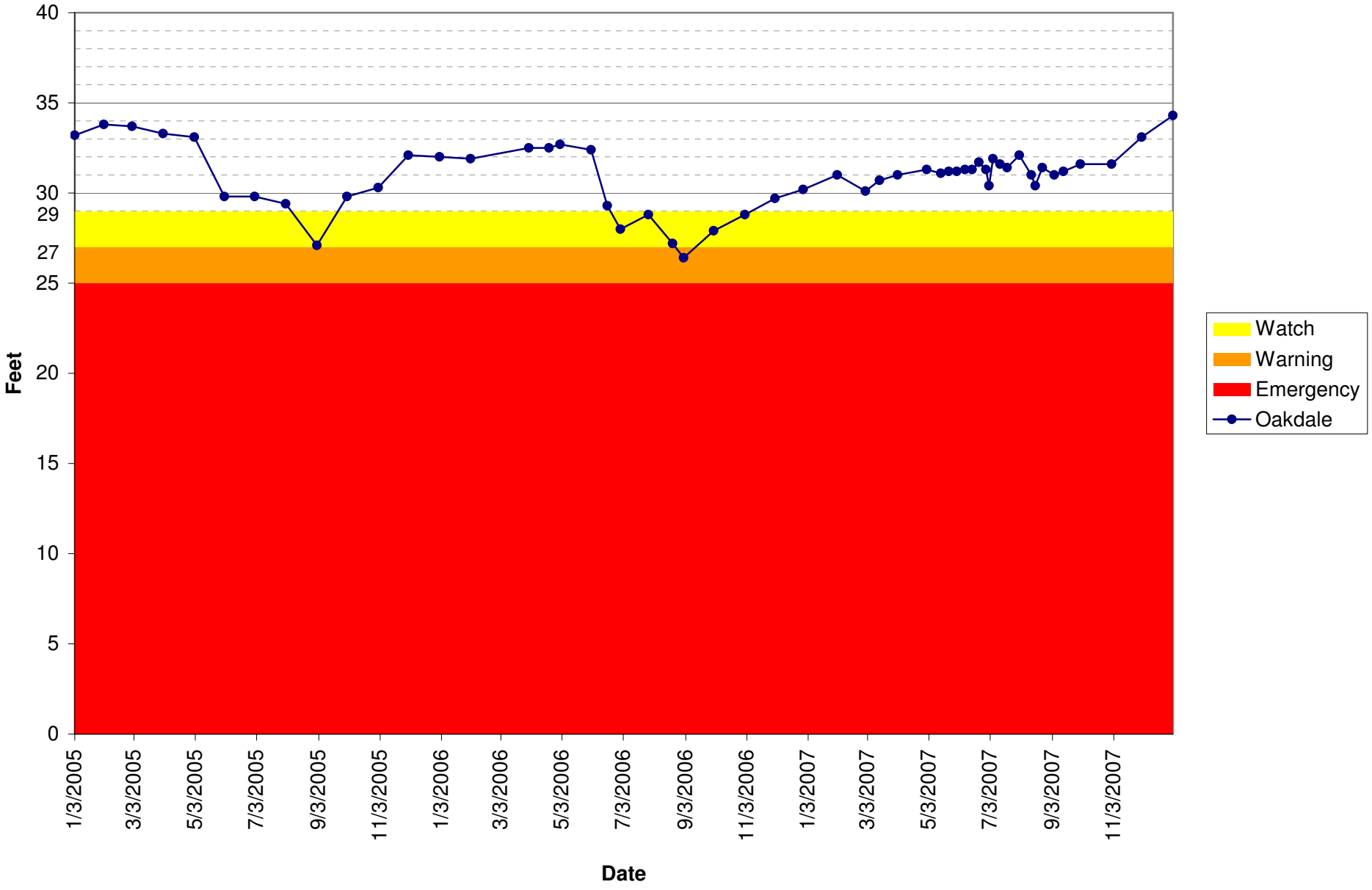
		Watch	Warning	Emergency
River	Current	Discharge at Mentor Gage is less than 45 cfs	Discharge at Mentor Gage is less than 30 cfs	Discharge at Mentor Gage is less than 15 cfs
	Proposed (June-September)	Discharge at Mentor Gage is less than 40 cfs and in a generally declining trend for at least 7 consecutive days	Discharge at Mentor Gage is less than 30 cfs and in a generally declining trend for at least 5 consecutive days	Discharge at Mentor Gage is less than 20 cfs and in a generally declining trend for at least 3 consecutive days
	Proposed (October-May)	Discharge at Mentor Gage is less than 30 cfs and in a generally declining trend for at least 7 consecutive days	Discharge at Mentor Gage is less than 20 cfs and in a generally declining trend for at least 5 consecutive days	Discharge at Mentor Gage is less than 15 cfs and in a generally declining trend for at least 3 consecutive days
Groundwater	Current	Depth of water at Oakdale Monitoring Well is at least 5 ft below seasonal average	Depth of water at Oakdale Monitoring Well is at least 10 ft below seasonal average	Depth of water at Oakdale Monitoring Well is at least 15 ft below seasonal average
	Proposed	When groundwater is the only source and the depth of water at Oakdale Monitoring Well is less than 29 ft	When groundwater is the only source and the depth of water at Oakdale Monitoring Well is less than 27 ft	When groundwater is the only source and the depth of water at Oakdale Monitoring Well is less than 25 ft

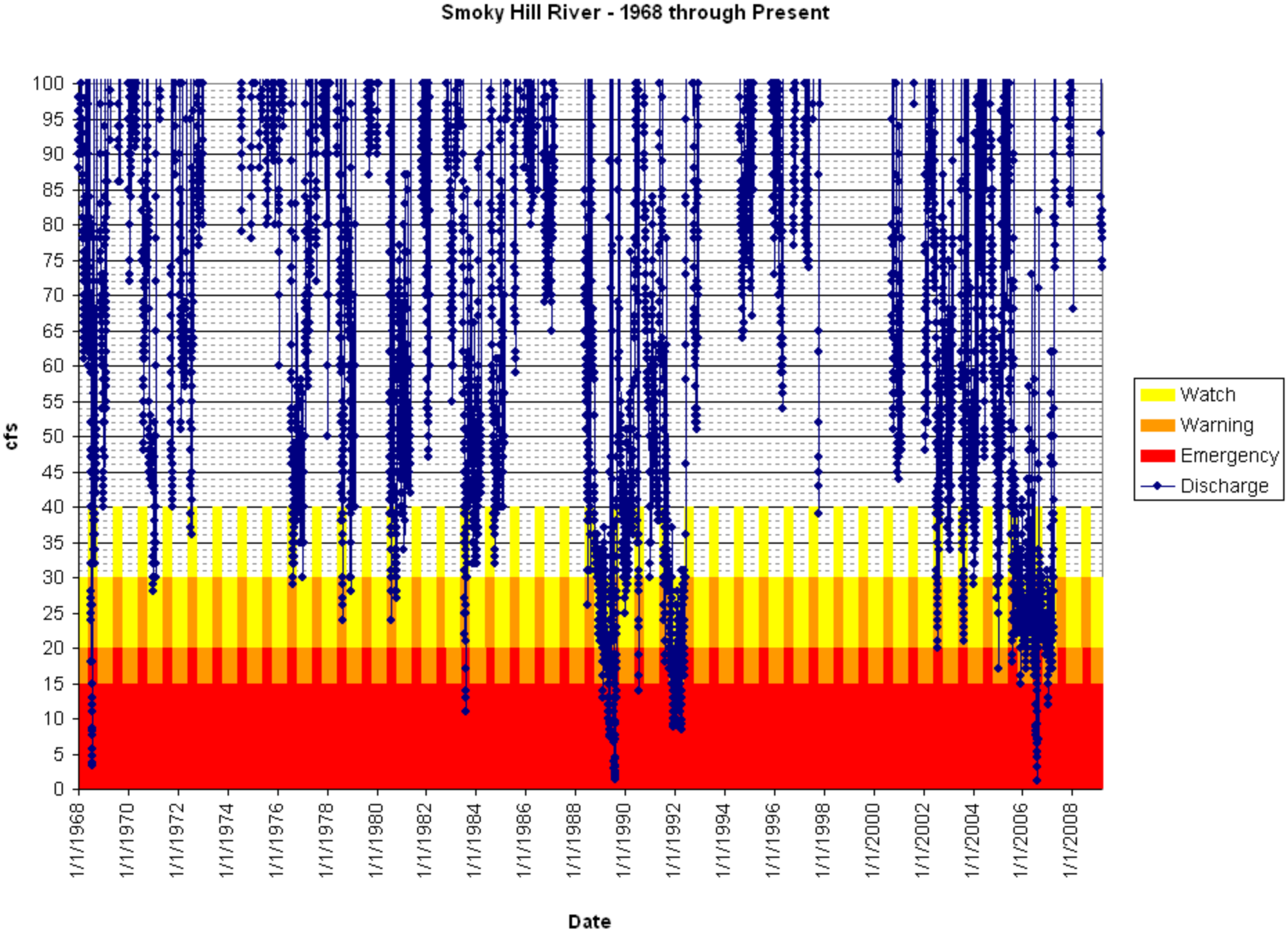

Oakdale Monitoring Well - 1968 through Present
(Depth of Groundwater)
Feet
50
45
40
35
30
29
27
25
20
15
10
5
0
3/1/1968
3/1/1970
3/1/1972
3/1/1974
3/1/1976
3/1/1978
3/1/1980
3/1/1982
3/1/1984
3/1/1986
3/1/1988
3/1/1990
3/1/1992
3/1/1994
3/1/1996
3/1/1998
3/1/2000
3/1/2002
3/1/2004
3/1/2006
3/1/2008
Date
Watch
Warning
Emergency
Oakdale

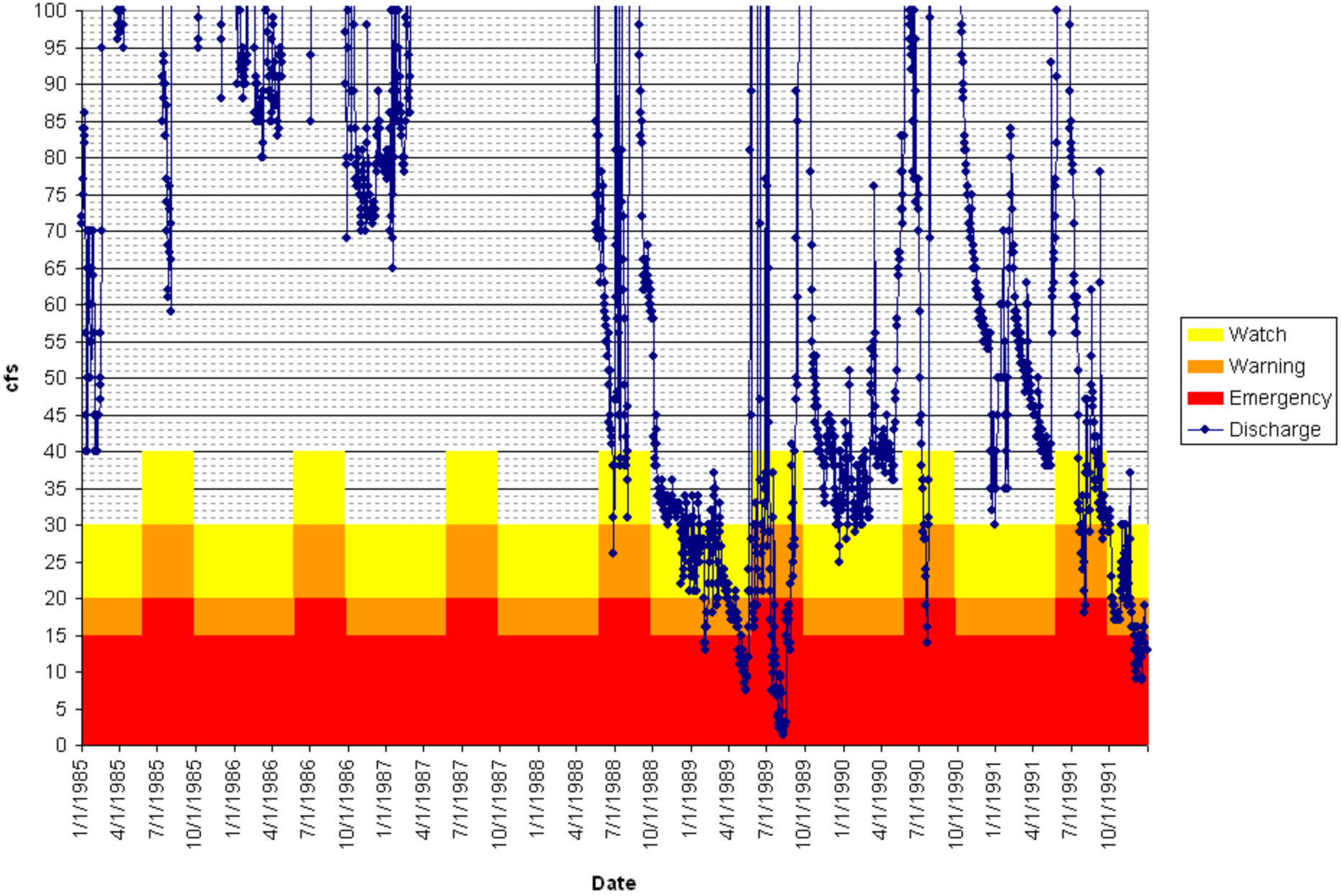

Oakdale Monitoring Well - 1985 through 1991
(Depth of Groundwater)
Feet
40
35
30
29
27
25
20
15
10
5
0
Jan-85
Apr-85
Jul-85
Oct-85
Jan-86
Apr-86
Jul-86
Oct-86
Jan-87
Apr-87
Jul-87
Oct-87
Jan-88
Apr-88
Jul-88
Oct-88
Jan-89
Apr-89
Jul-89
Oct-89
Jan-90
Apr-90
Jul-90
Oct-90
Jan-91
Apr-91
Jul-91
Oct-91
Jan-92
Date
Watch
Warning
Emergency
Oakdale


Oakdale Monitoring Well - 2000 through Present
(Depth of Groundwater)
Feet
50
45
40
35
30
29
27
25
20
15
10
5
0
1/1/2000
5/1/2000
9/1/2000
1/1/2001
5/1/2001
9/1/2001
1/1/2002
5/1/2002
9/1/2002
1/1/2003
5/1/2003
9/1/2003
1/1/2004
5/1/2004
9/1/2004
1/1/2005
5/1/2005
9/1/2005
1/1/2006
5/1/2006
9/1/2006
1/1/2007
5/1/2007
9/1/2007
1/1/2008
5/1/2008
9/1/2008
1/1/2009
Date
Watch
Warning
Emergency
Oakdale

Oakdale Monitoring Well - 2005 through 2007
(Depth of Groundwater)




Smoky Hill River - 1968 through Present
cfs
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
1/1/1968
1/1/1970
1/1/1972
1/1/1974
1/1/1976
1/1/1978
1/1/1980
1/1/1982
1/1/1984
1/1/1986
1/1/1988
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
Date
Watch
Warning
Emergency
Discharge


Smoky Hill River - 1985 through 1991
cfs
Date
Watch
Warning
Emergency
Discharge
100
95
90
85
80
75
70
65
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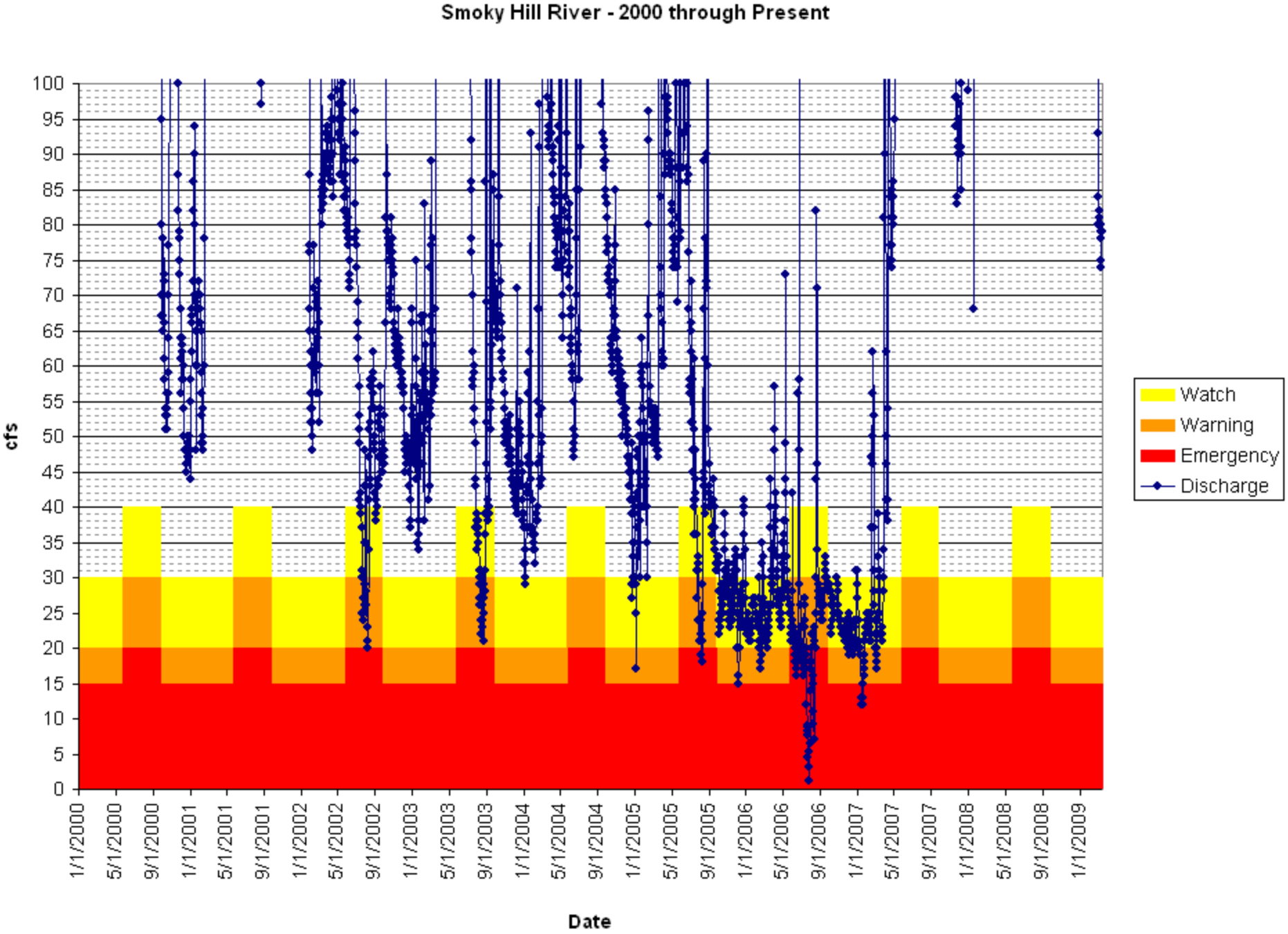
Smoky Hill River - 2000 through Present
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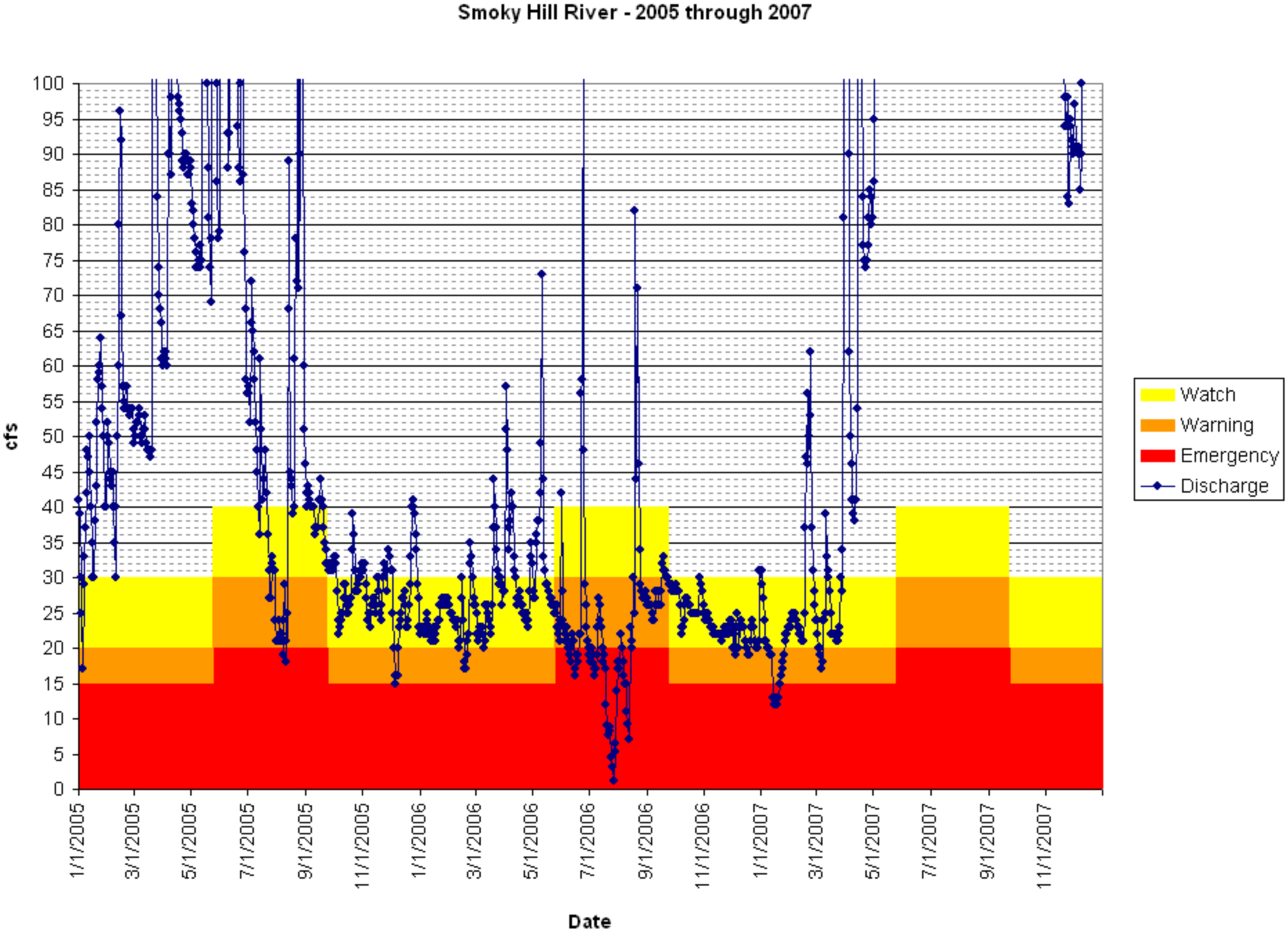
Date
Watch
Warning
Emergency
Discharge


Smoky Hill River - 2005 through 2007
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5/1/2007
7/1/2007
9/1/2007
11/1/2007
Date
Watch
Warning
Emergency
Discharge

Discussion/Questions

Water Conservation Measures

- Current water conservation measures
  - Water conservation rate structure
  - Water Emergency water rates
  - Conservation packets, newsletters, brochures, etc.
  - Water loss control/meter maintenance programs
  - Water bill inserts – monthly water saving tips
  - Water conservation website
  - Local newspaper ads
  - Water waste ordinance
- Comprehensive list of conservation measures
  - Citizen's Advisory Board completed ranking
  - Compiled top 10 additional water conservation measures

Conservation Measures – CAB Ranking

Order of Importance of Implementation	Type of Measure	Potential Water Conservation Measure	Total Points Received During Rating
1	Outreach and Education	Understandable and Informative Water Bill	33
2	Outreach and Education	Water Conservation Classes	32
3	Outreach and Education	Teaching Water Conservation in Schools	32
4	Rate Structure	Water Emergency Water Rates*	32
5	Rate Structure	Conservation Based Water Rate Structure*	31
6	Outreach and Education	Conservation packets, brochures, newsletter articles, etc.*	30
7	System	Water Loss Control Program*	29
8	Outreach and Education	High Use Notifications	29
9	Outreach and Education	Bill Inserts – Monthly Water Saving Tips*	29
10	Commercial & Industrial Incentive Program	Commercial High-Efficiency Toilets	29
11	Outreach and Education	Public Awareness for Commercial & Industrial (placards, stickers, etc.)	29
12	Outreach and Education	Water Conservation Website*	28
13	Rebate Program	High Efficiency or Low Flow Toilets Rebate	28
14	Commercial & Industrial Incentive Program	Water Savings Project Program	28
15	System	Water Meter Maintenance Program*	27
16	Outreach and Education	Local Newspaper Ads*	27
17	Rebate Program	Rain Sensors Rebate	27
18	Landscaping Ordinance	Water Waste Ordinance*	27
19	Outreach and Education	Water Conservation Garden	26
20	Commercial & Industrial Incentive Program	Commercial Low Flow Toilets	26

* Currently being implemented by the City and should be continued

Conservation Measures – Final Top 10

Type of Measure	Potential Water Conservation Measure
Outreach and Education	Understandable and Informative Water Bill
Outreach and Education	Water Conservation Classes
Outreach and Education	Teaching Water Conservation in Schools
Outreach and Education	High Use Notifications
Outreach and Education	Public Awareness for Commercial & Industrial (placards, stickers, etc.)
Commercial & Industrial Incentive Program	Commercial High-Efficiency Toilets
Rebate Program	High Efficiency or Low Flow Toilets Rebate
Rebate Program	High Efficiency Clothes Washer Rebate
Outreach and Education	Water Conservation Garden
Ordinance	Xeriscape Ordinance

* The City should continue to implement all their current water conservation measures

*Conservation is not an additional supply, it delays the need for additional sources.